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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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John M. Snyder

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EXAMINER

NGUYEN, PHU K

ART UNIT

PAPER NUMBER

2628

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/761,558	SNYDER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	PHU NGUYEN	2628	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 April 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-64 and 68-73 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-64, 68-73 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over WESCOTT et al (5,341,463).

As per claim 1, Wescott teaches the claimed “method” comprising: providing a first texture map for a first portion of a three-dimensional surface, the first texture map being associated with a first mapping technique” (Wescott, Map projection, figure 7); and “providing a second texture map for a second portion of the three-dimensional surface, the second texture map being associated with a second mapping technique” (Wescott, figure 33; column 8, line 58 to column 9, line 17, column 10, lines 5-18). It is noted that Wescott does not explicitly teach “the second map technique is different from the first mapping technique” as claimed. However, Wescott’s azimuthal, cylindrical projectors (column 1100, lines 26-36) suggests the use of projectors with different properties (e.g., figure 15, Equirectangular projection for the areas at the equator and figure 33, poplar orthogonal projector for the area at the polar-capped map). The motivation of using different projectors is the application of well known projectors with different properties to yield a predictable result.

### **RESPONSE TO APPLICANT'S ARGUMENTS**

Applicant's arguments filed April 22, 2011 have been fully considered but they are not persuasive.

Applicant argues that Westcott's map is a projection a single projection on entire map, not different projections for different regions as claimed which is not persuasive. Westcott's single projection can be a combination of two (2) different projections; for example, Westcott's oblique conic or mercator projection is a combination of different projectors on different regions of the map (Westcott, column 19, lines 5-29; an oblique conic projection has different projectors for different regions; see also figures 23, 28). Westcott specifically teaches the different projections on different regions of the earth map to compensate the distortion of mapping a spherical shape into a planar map. Specifically, Westcott's implementation of an oblique Mercator projection (column 897-900) shows different projections for different regions of the earth (e.g., if  $(\text{abs}(\text{deltax}) > \pi)$  then replace  $rx$  by  $rx - \text{sign}(\text{tpie}, \text{deltax})$ ). Furthermore, Westcott's projection with the spherical coordinates (i.e., longitude and latitude coordinates) can be expressed as a projection in the Cartesian coordinate  $(x, y, z)$  by translating the spherical coordinates into Cartesian coordinates. It is noted that Westcott's projection is a area-preserving bijections with one-to-one combined mappings of points from spherical regions into a planar map. Accordingly, the claimed invention as represented in the claims does not represent a patentable distinction over the art of record.

Claim 2 adds into claim 1 "the first texture map includes cylindrical projection

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information for the first portion, and the second texture map includes azimuthal projection information for the second portion” (Wescott, figures 15 and 33).

Claim 3 adds into claim 2 “providing a third texture map for a third portion of the three-dimensional surface, the third texture map being associated with the second mapping technique, and wherein the third texture map includes azimuthal projection information for the third portion” (Wescott, column 1100, lines 26-36, column 8, line 58 to column 9, line 17, column 10, lines 5-18).

Claim 4 adds into claim 3 “wherein the cylindrical projection information includes plane-chart projection information” which is just a design choice in view of Wescott's well known cylindrical projections (Wescott, column 1100, lines 26-36, column 8, line 58 to column 9, line 17, column 10, lines 5-18).

Claim 5 adds into claim 3 “wherein the azimuthal projection information includes equidistant projection information” which is just a design choice in view of Wescott's well known azimuthal projections (Wescott, column 1100, lines 26-36, column 8, line 58 to column 9, line 17, column 10, lines 5-18).

Claims 6-9 add into claim 2 the details of projections which are widely known in the art (official notice) and used in the claimed projections are mere design choice.

Claim 10 adds into claim 1 “wherein the first texture map includes Mercator projection information for the first portion, and the second texture map includes stereographic projection information for the second portion” (“ which is just a design choice in view of Wescott’s well known cylindrical projections” (Wescott, column 1100, lines 26-36, column 8, line 58 to column 9, line 17, column 10, lines 5-18).

Claims 11-13 add into claim 10 the details of projections which are widely known in the art (official notice) and used in the claimed projections are mere design choice.

Claim 14 adds into claim 3 “the cylindrical projection information includes information selected from at least one type of projection information selected from a group comprising plane-chart projection information, equal area information, and Mercator information” (Wescott, figure 20).

Claim 15 adds into claim 3 “wherein the azimuthal projection information includes information selected from at least one type of projection information selected from a group comprising equidistant projection information, stereographic projection information, gnomonic projection information, and equal area projection information” (Wescott, column 1100, lines 26-36, column 8, line 58 to column 9, line 17, column 10, lines 5-18).

Claim 16 adds into claim 3 “wherein the first portion is significantly adjacent to both the first and second portions, such that the first portion separates the second and third portions” (Wescott, figure 23; column 1100, lines 26-36, column 8, line 58 to column 9, line 17, column 10, lines 5-18).

Claim 17 adds into claim 1 “wherein the three-dimensional surface is curvilinear” (Wescott, the spherical map with the latitude/longitude lines; figure 7).

Claim 18 adds into claim 1 “wherein the three-dimensional surface includes a spherical surface” (Wescott, the spherical map; figure 7).

Claim 19 adds into claim 1 “wherein providing the first texture map further includes generating the first texture map using the first mapping technique, and providing the second texture map further includes generating the second texture map using the second mapping technique” (Wescott, figures 15, 33; column 1100, lines 26-36, column 8, line 58 to column 9, line 17, column 10, lines 5-18).

Claim 20 adds into claim 1 “wherein at least one of the first and second texture maps includes information based on a rectangular sampling matrix” (Wescott, depends on the projections 1-15, figure 15; column 1100, lines 26-36, column 8, line 58 to column 9, line 17, column 10, lines 5-18).

Claim 21 adds into claim 1 “wherein at least one of the first and second texture maps includes information based on a hexagonal sampling matrix” (Wescott, depends on the projections 1-15, figure 15; column 1100, lines 26-36, column 8, line 58 to column 9, line 17, column 10, lines 5-18).

Claim 68-69 are similar to claims 1-21, but claim a specific “low-distortion area preserving map” which is a well known projection map (as showed in Applicant's Specification, pages 32-33)

Claims 22-67, 70-73 claim a computer readable medium, apparatus with logic, map set, method based on the method of claims 1-21; therefore, they are rejected under the same reason.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHU NGUYEN whose telephone number is (571)272-7645. The examiner can normally be reached on M-F/8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on (571) 272 7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Phu K. Nguyen/  
Primary Examiner, Art Unit 2628